

ABSTRACT OF THE DISCLOSURE

An automobile air conditioning system controls the high pressure of the refrigeration cycle in a wide range of airflows from a low airflow region during an intermediate period to a high
5 airflow region. When a dehumidifying mode is selected, the target high pressure at which the cycle efficiency calculated from a gas cooler outlet refrigerant temperature is maximized is defined as a target value to a valve such as a heating variable throttle valve to control the high pressure of the refrigeration cycle to the target
10 value. This permits control such that the cycle efficiency of the refrigeration cycle is maximized in a wide range of airflow from a low airflow region during an intermediate period to a high airflow region at a relatively low, about 10°C, outside air temperature.